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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,598	08/29/2003	Norbert A. Feliss	HIT1P033/HSJ9-2003-0158US	9699
50535 7590 07/24/2007 ZILKA-KOTAB, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120			EXAMINER RENNER, CRAIG A	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 07/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/651,598

Applicant(s)

FELISS ET AL.

Examiner

Craig A. Renner

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 2,7 and 12-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 2, 7, 16, 24 and 25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 15 February 2006.

2. Applicant's election without traverse of group "I, claims 1, 3-6, and 8-11" in the reply filed on 11 May 2007 is acknowledged. Accordingly, claims 12-15 and 17-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim.

Drawings

3. The drawings were received on 09 August 2006. These drawings are accepted.

Specification

4. The disclosure is objected to because of the following informality:

In line 3 of claim 1, "a upper layer" should be corrected to read --an upper layer--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-6, and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Komiyama (JP 04-082066).

Komiyama (JP 04-082066) teaches a composite ring (22) comprising an upper layer (12 or 13) constructed of a material (i.e., “nickel,” for instance) having a Young's modulus greater than or equal to a primary material of a disk (i.e., when the unclaimed disk is aluminum, for instance, since the claims are only directed to a composite ring, per se, and not the combination of a disk and a composite ring); and a lower layer (11) fixedly coupled to the upper layer without requiring external biasing thereagainst for the fixed coupling (as shown in FIG. 1(c), for instance), the lower layer being constructed of a material (i.e., “aluminum,” for instance) having similar properties to that of the disk (i.e., when the unclaimed disk is aluminum, for instance, since the claims are only directed to a composite ring, per se, and not the combination of a disk and a composite ring), the properties being selected from a group consisting of a coefficient of thermal expansion, thermal conductivity and Young's modulus [as per claim 1]; wherein the Young's modulus of the upper layer is between about 60 to about 300 GPa (i.e., “nickel,” for instance, has a Young's modulus between about 60 to about 300 GPa) [as

per claim 3]; wherein the upper layer is constructed of a material selected from a group consisting of chrome, titanium, nickel, stainless steel and composites thereof (i.e., “nickel”, for instance) [as per claim 4]; wherein the lower layer has a thermal expansion of between about 1 and 25 ($10^{-6}/C$) (i.e., “aluminum,” for instance, has a thermal expansion of between about 1 and 25 ($10^{-6}/C$)) [as per claim 5]; wherein the lower layer is constructed of a material selected from a group consisting of aluminum and glass (i.e., “aluminum”, for instance) [as per claim 6]; wherein the layers are coupled together via mechanical bonding (as shown in FIG. 1(c), for instance) [as per claim 8]; wherein the layers are coupled together by an adhesive (as shown in FIG. 1(c), for instance) [as per claim 9]; wherein the layers are coupled together at a molecular level (as shown in FIG. 1(c), for instance) [as per claim 10]; and wherein a ratio of the Young's modulus of the upper layer to the Young's modulus of the lower layer is between about 1 and 5 (i.e., a ratio of the Young's modulus of nickel to the Young's modulus of aluminum is between about 1 and 5) [as per claim 11]. With respect to the intended use limitation(s), appearing, for instance, in line 1 of claim 1, note that a recitation with respect to the manner in which a claimed apparatus (i.e., “composite ring”) is intended to be employed (i.e., “for coupling a disk to a spindle”, for instance) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations, *Ex parte Masham*, 2 USPQ2d 1647 (PTO BPAI 1987).

7. Claims 1, 3-6, and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Creydt (US 4,679,681).

Créydt (US 4,679,681) teaches a composite ring (3) comprising an upper layer (1) constructed of a material (i.e., "steel," for instance) having a Young's modulus greater than or equal to a primary material of a disk (i.e., when the unclaimed disk is aluminum, for instance, since the claims are only directed to a composite ring, per se, and not the combination of a disk and a composite ring); and a lower layer (2) fixedly coupled to the upper layer without requiring external biasing thereagainst for the fixed coupling, the lower layer being constructed of a material (i.e., "aluminum," for instance) having similar properties to that of the disk (i.e., when the unclaimed disk is aluminum, for instance, since the claims are only directed to a composite ring, per se, and not the combination of a disk and a composite ring), the properties being selected from a group consisting of a coefficient of thermal expansion, thermal conductivity and Young's modulus [as per claim 1]; wherein the Young's modulus of the upper layer is between about 60 to about 300 GPa (i.e., "steel," for instance, has a Young's modulus between about 60 to about 300 GPa) [as per claim 3]; wherein the upper layer is constructed of a material selected from a group consisting of chrome, titanium, nickel, stainless steel and composites thereof (i.e., stainless steel, for instance) [as per claim 4]; wherein the lower layer has a thermal expansion of between about 1 and 25 ($10^{-6}/C$) (i.e., "aluminum," for instance, has a thermal expansion of between about 1 and 25 ($10^{-6}/C$)) [as per claim 5]; wherein the lower layer is constructed of a material selected from a group consisting of aluminum and glass (i.e., "aluminum", for instance) [as per claim 6]; wherein the layers are coupled together via mechanical bonding (as shown in Figs. 1-3, for instance) [as per claim 8]; wherein the layers are coupled together by an adhesive (as shown in Figs.

1-3, for instance) [as per claim 9]; wherein the layers are coupled together at a molecular level (as shown in Figs. 1-3, for instance) [as per claim 10]; and wherein a ratio of the Young's modulus of the upper layer to the Young's modulus of the lower layer is between about 1 and 5 (i.e., a ratio of the Young's modulus of steel to the Young's modulus of aluminum is between about 1 and 5) [as per claim 11]. With respect to the intended use limitation(s), appearing, for instance, in line 1 of claim 1, note that a recitation with respect to the manner in which a claimed apparatus (i.e., "composite ring") is intended to be employed (i.e., "for coupling a disk to a spindle", for instance) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. See *Ex parte Masham*, supra.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Yahata (US 5,724,208) and Cheng et al. (US 6,130,801), which each individually teaches a composite ring.

Response to Arguments

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Craig A. Renner
Primary Examiner
Art Unit 2627

CAR